

Information Systems Infrastructure Operations, Software Maintenance & Development, and Website Management at the Office of Pesticide Programs

Performance Work Statement Background:

The Environmental Protection Agency (EPA) is responsible for protecting human health and the environment for the United States. The Office of Pesticide Programs (OPP) serves an important role in helping the Agency meet this mandate. In conjunction with other EPA offices, OPP is responsible for the regulation of pesticide production, importation, distribution, and use in the United States.

In 2003, OPP migrated all of its major data systems including regulatory information, scientific data, and workflow tracking into one integrated system, the Office of Pesticide Programs Information Network (OPPIN). OPPIN consolidated information previously stored on the EPA mainframe, the OPP LAN, on stand-alone computers and in paper copy. The purpose of this system was to decrease OPP's data entry burden, increase its analytical capabilities, keep better track of decision-making processes, prevent data loss, improve access to critical decision documents, and make OPP information readily available both within EPA and to stakeholders outside of EPA. As a result of missing functionality, deficiencies in the existing software, data integrity issues, and a variety of other issues, OPPIN was retired in September 2009 and replaced with a new information system named PRISM; the Pesticide Registration Improvement System. PRISM is intended to close existing gaps relating to the EPA mission, replace the current functionalities of the OPPIN system with more efficient tools, create new applications and integrate other existing systems to support data exchange with national and international users and provide current users with a more stable system using newer technologies to enable OPPTS to continue to meet its' goals and timeframes for pesticides registrations.

To implement this vision of PRISM, existing applications built with older software need to be modernized, outdated processes need to be reexamined, and new technological platforms should be implemented for this effort to be successful. The following will provide background on existing applications to be modernized, new applications to be built, processes to be improved, and new technologies to be implemented.

Several Branches within the Information Technology and Resource Management Division (ITRMD) will participate at the Objective level in the management and oversight of this Performance Work Statement as Contract Office Representative or as Alternates (COR/ACOR). The Customer Service and Computer Support Branch (CSCSB) is responsible for all servers, hardware, network connectivity, software installation and implementation, operating systems, and other assorted software platforms (Oracle, Lotus Notes, Documentum, etc.). The Systems Design and Development Branch (SDDDB) is responsible for the maintenance of existing software and the development of new software for the Office of Pesticide Programs. The Internet and Training Branch (ITB) is responsible for developing, operating, and maintaining software and content of the Pesticides internet websites including OPP's intranet site, OPP@Work. Each of these Branches will provide a lead COR/ACOR for the management of contractor support as described in this Performance Work Statement (below).

Scope of Work:

The purpose of this contract is to identify and obtain contractor consulting assistance to provide technical, maintenance and operational support, new software development, web development and maintenance of all software including sub-systems for all software applications and other system platform issues. The contractor shall provide such support for all project-related issues associated with all OPP information systems residing on Windows 2003 servers, Linux servers, the EMC² Storage Area Network (SAN), the Oracle Real Application Cluster, and all other platforms as required that are currently written for Oracle, Java/J2EE, Documentum,

available to OPP personnel via the LAN and OPP external customers via the Intranet/Internet and other mechanisms (Citrix, remote access via RSA tokens, File Transfer Protocol (FTP) sites, for example). The contractor also shall provide rapid turn around of enhancements to OPPIN/PRISM. The contractor shall provide maintenance support to correct identified software and data errors and potential enhancements defined as critical to the OPP Mission. Critical unplanned enhancements may be required as a result of changes to laws governing the pesticide industry.

The physical offices of OPP are located at 2777 Crystal Drive, Arlington, VA where OPP servers are located. The current RDBMS platform is Oracle 10g R2 in a Real Application Cluster (RAC) environment. OPPIN/PRISM utilizes Oracle 10g Application Server on the middle-tier of an N-tier design. OPPIN/PRISM consists of approximately 1,000 tables, stored procedures, functions, and packages running on Red Hat Linux Enterprise Edition (RHEL). OPP's primary storage is a CLARiiON CX500 Storage Area Network (SAN), soon to be migrated to a DELL/EMC CX-4-240. Presently, the OPP SAN has a 20 terabyte capacity with a planned expansion of up to 80 terabytes. Each of OPPIN/PRISM's 3 instances (Development, Test, & Production) occupies approximately 20 GB of Oracle tablespace (for each instance) including rollback segments and redo logs. OPPIN/PRISM storage requirements are expected grow substantially as document images are added (.TFF and .PDF) making the expansion plans for the SAN necessary.

Several applications currently exist to provide Oracle access to the PRISM user community. The OPPIN DataEntry application is a Powerbuilder "Fat" client/server application used to provide create, retrieve, update, and delete capabilities for OPP staff and management. The OPPIN Query application is an Oracle Application Server 10g compilation of PL/SQL packages that generate HTML source code to provide an internet browser application to retrieve Read-Only collections of OPPIN/PRISM data. Newer applications focus on software developed in Java. These applications were developed for the Oracle 10g Release 2 Application Server to provide J2EE Model-View-Controller technologies using Java Run Time 1.5.0_15 built on Eclipse IDE v3.2 with approved plug-ins, ANT 1.7, Hibernate, Swing, Spring, Spring MVC, AJAX with JQuery, Spring Security, JMS, JSP, JSTL, Apache Tiles, struts, Adobe Acrobat Capture, SmartDraw, Webtrends, JAWS, Xenu Linksleuth, Adobe Creative Suite Web Premium 4 (combines most of the Adobe products into one suite), and Adobe Flex.

A secondary platform for OPPIN/PRISM is Lotus Notes. ITRMD is currently underway in the process of reassessing all Lotus Notes software included in the OPPIN/PRISM model with plans to redevelop that software using other platforms. Currently, however, Oracle and Lotus Notes interact with each other in OPPIN/PRISM via the Lotus Enterprise Integrator (LEI). Lotus Notes, the principal email tool for all of EPA (which is managed and supported by EPA's Office of Environmental Information, not OPP) is used in OPPIN/PRISM to house the OPPTS Directory, a user identification repository, and to hold an assortment of Lotus Notes documents useful to assorted organizations within OPP. Additions, deletions and/or edits made to the OPPTS Directory currently are swept by LEI out of the Lotus Notes documents into temporary Oracle tables every three to five minutes. Subsequently, a procedure, initiated by Oracle triggers, updates primary OPPIN/PRISM tables with the data from the OPPTS Directory. LEI also is used to update Lotus Notes documents with OPPIN/PRISM data on regular, though less frequent, intervals via a similar mechanism. LEI also is used to inform OPP staff and management via Lotus Notes email about certain activities occurring within OPPIN/PRISM. The plans for the future are to replace the OPPTS Directory with a new, integrated application using LDAP Server technologies contained in EPA's version of Microsoft Active Directory and may include Oracle Internet Directory (OID) services.

Major web browser based Java applications currently in Production include:

- iPRISM

Page: 2

- Endocrine Disruptor Screening Program (EDSP)
- Registration Review

- Electronic Submissions (eSubmission)
- Endangered Species
- Section Seven Tracking System (SSTS)
- Label Use Information System (LUIS)
- eCSF (Confidential Statement of Formula) – a stand-alone, non-network application
- eDossier – a stand-alone, non-network application
- Incidents (in development)
- Public Health Tracking System (in development)
- Archive Record Series – a Lotus Notes conversion to Documentum (in development)

OPP also utilizes other system platforms, including:

- Enterprise Content Management System (Documentum)
- Reports using Business Objects

OPP receives a variety of paperwork from industry members wishing to register their pesticide products. The Office also generates a wide array of internal documents, including many for publishing to the registrant community. This makes OPP a very document-rich environment. Currently, the electronic documents can be found in many scattered locations, including network share drives, Lotus Notes repositories, and personal hard drives. The paper documents can be found in many different locations as well, from a controlled file room to individuals' workstations. The decentralized nature of these storage practices makes document retrieval and information sharing difficult, while simultaneously promoting document duplication, versioning issues, and process inefficiencies. OPP has selected EMC²'s Documentum software suite to meet its Enterprise Content Management System needs. A proof-of-concept system was created in 2006 that included the core Documentum functionality, including a baseline Documentum Object Model (DOM).

The DOM was then customized to fit the specific needs of OPP, and core search functionality was augmented to fit the new document type and attributes. Three external collections of OPP documents were imported into the repository in order to provide the end user community with a familiar reference point for becoming familiar with the system. The proof-of-concept system was operational in January 2007. The most critical functionality of this system was solidified soon thereafter, along with several additional modifications. By June 2007, a production system was rolled out that included a collection of Studies received by OPP (one of the three initial collections of data). In January 2010, OPP upgraded Documentum its repository from v5.3 to v6.5.

Business Objects provides comprehensive business intelligence solutions and functionality via access to canned and ad-hoc OPPIN/PRISM reports. Two servers are used within the OPPIN environment in support of the Business Objects functionality, including a Business Objects XI R2 server (Apache 2.0.46 / Tomcat 4.1.27) and database server (Oracle 9.2.0.5). The Business Objects environment will be fully integrated into the current OPPIN architecture and will host the Document, Security, and Universe domains.

Website development, operations and maintenance, and the management of content of the Pesticides internet website are objectives for which a contractor may be responsible. Examples of the type of work a contractor could be responsible for may include:

- Development of new web pages and projects
 - o Develop a variety of major projects each year (eg. Pesticide Application Registrations, Pesticide Registration Manual (Blue Book), etc.)
 - o Develop hundreds of new pages each year
 - o Edit, correct and update thousands of pages each year

- Develop or significantly enhance existing web applications
 - o New Search Mechanisms

- o Pesticide Product Label System (PPLS)
- o Incident Portal
- Maintain existing web applications and databases
 - o Section 18
 - o Food and Feed
 - o PEWU
 - o Pesticide Product Information System (PPIS)
 - o Troubleshoot and solve technical problems across all parts of the Pesticides website
- Lead Efforts to Utilize Web 2.0 Tools and Implement the Open Government Initiative
 - o Web 2.0 Training and Planning
 - o Public Participation
 - o Provide OPP resources for Data.Gov and other new sites
- Ensure Compliance with Agency and OPP Web Standards
 - o Agency web standards, web guide, etc
 - o OPP and OPPTS SOPs
 - o Section 508 compliance on all Web products to include PDF documents
- Plan and Manage Transition to Agency's Web CMS Platform
 - o Develop OPP Metadata Standard and Implementation Plan
 - o Develop Information Architecture
 - o Identify and consolidate Web content through ROT (Redundant, Outdated, and Trivial)
 - o Represent OPP and OPPTS on transition
- Enhance and Maintain OPP@Work
 - o Lead comprehensive redesign effort
 - o Implement new pages and features for customers
 - o Edit and update daily
- Analyze and Report on Web Usage Statistics
 - o Develop Pesticides Website Annual Report
 - o Provide custom reports for customers

Statement of Objectives:

The requirements contained in this contract are considered performance-based, focusing on OPP's desired results and outcomes. Each task of this contract shall be considered Firm Fixed-Price or Time and Materials. The contractor shall be responsible for determining the most effective means by which these requirements will be fulfilled. In order to fulfill the requirements, the contractor shall design innovative processes and systems that can deliver the required services in a manner that will best meet the OPP's Performance Objectives. This performance-based requirement represents a challenge to the contractor to develop and apply innovative and efficient approaches for achieving results and meeting or exceeding the Performance Objectives, measures, and standards described below. OPP will monitor the contractor's performance in accordance with the Quality Assurance Surveillance Plan as described within each Objective.

Under this performance work statement, OPP defines the desired outcome and, in turn, the contractor proposes the most efficient methods to achieve results that fulfill the desired outcome. Typical areas that are measured include cost control, timeliness and completeness of deliverables, problem resolution, business relations, quality of work performed, and whether or not the deliverable assists OPP in meeting its objectives and goals as

In cases where Performance Objectives and minimum Acceptable Quality Levels (AQLs) are not being met, the contractor will make every effort to immediately correct the problem to ensure customer satisfaction. If the problem is systemic, the contractor will submit a plan of corrective action to the COR.

Note: There will be mandatory and optional objectives listed in the Statement of Work (SOW). All mandatory objectives will be priced out as time and materials line items. All optional objectives will be priced out as fixed price line items.

The Government reserves the right to exercise optional tasks if there is a bona fide need. The optional tasks must have been evaluated as part of the initial task order 'best value' determination, and although EPA is not committed beyond the basic tasks listed in the PWS, the Agency may exercise the optional tasks unilaterally, provided that (1) funds are available; (2) the requirement cover by the optional task fulfills an existing government need; (3) prior to exercising an optional task, the Government ensures that is still in the Government's best interest (i.e., that the optional task is the most advantageous method of fulfilling the government's need, price and other factors considered); and (4) the optional task does not extend beyond the period of the task order, including option year. Before exercising any optional tasks the Government and the contractor will discuss assumptions and current relevant information and expectations.

Performance Object 1: Program Management (Mixed requirements – Mandatory & Optional)

Subtask 1.1 Program Management Plan

The Contractor shall provide a single point of contact for the management of all aspects of the tasks; this person shall be identified as the Program Manager. The Program Manager shall report on all aspects of the objectives of this task to the designated OPP Contract Officer Representative (COR) or designated Alternate (ACOR). The Program Manager shall provide, in writing, all requirements needed by the Contractor to accomplish the goals set out in this Performance Work Statement. The Program Manager shall verbally notify the COR/ACOR of any significant difficulties in accomplishing the task list agreed to at the weekly meeting.

The Program Management Plan (PMP) is a document describing the overall program structure; deliverables; related management plans and procedures; and the methods used to plan, monitor, control, and improve the project development efforts. The PMP is a dynamic document and is expected to be updated on a periodic basis to reflect organizational changes, lessons learned, and advances in methodologies that occur throughout the project life cycle. The Program Manager shall provide a Program Management Plan within ten (10) days after contract award.

The Program Manager shall be responsible for ensuring that the services and deliverables required by the EPA System Life Cycle are provided. At the time a task is identified, the COR/ACOR will determine when and if a specific project management plan is required. A project management plan shall be required for complex or long term tasks requiring extensive analysis, development, testing, or planning and coordination with other resources as determined by the COR/ACOR. If a project management plan is required, the Program Manager shall ensure that the plan is created and presented to the COR/ACOR. The project management plan shall identify all tasks, resources, schedule, assumptions, and risks associated with the Performance Objective. The project management plan shall require concurrence by the COR/ACOR and shall become the official schedule for the Performance Objective. The project management plan shall be maintained and updated by the Program Manager to reflect actual accomplishments, delays, or additional tasks identified for the duration of the Performance Objective and shall be provided to the COR/ACOR as needed. The Program Manager shall immediately notify the COR/ACOR of any factor or change that may significantly affect the approved schedule.

The Program Manager shall use the established Configuration Management (CM) tool in use by OPP to collect

and store all deliverables. The design descriptions and diagrams stored in the CM tool shall be the foundation for specifications to be used to update PRISM software.

Deliverable & Schedule for Task 1.1

The following deliverables are mandatory to support Objective 1:

Program Management Plan

An overall program management plan shall be submitted to the COR/ACOR no more than ten (10) business days after contract award.

1. The Program Manager shall provide a program management plan, in narrative form, describing, in detail, how the contractor will satisfy the needs of mandatory Performance Objectives within ten (10) days after contract award.
2. The Program Manager shall develop a project management plan for each Performance Objective as necessary according to the needs of the COR/ACOR. The Program Manager shall maintain and update the project management plan as necessary based on schedule and other changes. A project management plan for a Performance Objective shall include:
 - a. Project Name
 - b. Period of Performance
 - c. Contract Type
 - d. Project Manager
 - e. Project Description
 - f. List of Stakeholders

Task 1.2 Task Management Cost Accounting

The Program Manager shall produce a cost accounting report detailing the Budget, Actual Expenditures, and Variances down to the system level (Work Breakdown Structure [WBS] Level 3). The Program Manager shall use standard EPA practices for performing Earned Value Management and other generally accepted accounting practices.

Deliverables & Schedule for Task 1.2

The following spreadsheet is required to be submitted to the COR/ACOR on a monthly basis.

Figure 1: Earned Value Management Monthly Submission Template

	Contractor: Contract #: Report Prepared By:							

	Submission Date:							
3 rd Quarter FY2009								
April 09			May 09			June 09		
BCWS	ACWP	BCWP	BCWS	ACWP	BCWP	BCWS	ACWP	BCW P

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The Program Manager shall follow standard EPA Earned Value Management standards. The Program Manager shall produce the above spreadsheet each month for work performed under this Performance Work Statement detailing the Budget, Actual Expenditures, and Variances using generally accepted accounting practices. Definitions and calculations are based on the following formulas taken from EPA/OEI Capital Planning & Investment Control (CPIC) guidance documents:

Cost Variance (CV) = (BCWP-ACWP):

Cost Variance Percent (CV%) = ((CV/BCWP) x 100%):

Cost Performance Index (CPI) = (BCWP/ACWP):

Schedule Variance (SV) = (BCWP-BCWS):

Schedule Variance Percent (SV%) = ((SV/BCWS) x 100%):

Schedule Performance Index (SPI) = (BCWP/BCWS):

Estimate at Completion (EAC) = $\left(\frac{BAC - BCWP}{CPI}\right) + ACWP$:

Variance at Completion (VAC) = $BAC - EAC$:

Variance at Completion Percent (VAC%) = $\left(\frac{VAC}{BAC}\right) \times 100\%$:

Estimated Cost to Complete (ETC):

Estimate at Completion 2 (EAC2) = $\left(\frac{BAC - BCWP}{CPI \times SPI}\right) + ACWP$:

Variance at Completion 2 (VAC2) = $BAC - EAC2$:

Variance at Completion Percent 2 (VAC%2) = $\left(\frac{VAC2}{BAC}\right) \times 100\%$:

Estimated Cost to Complete 2 (ETC2):

Expected Completion Date:

- ACWP - Actual Cost of Work Performed - What you paid.
- BAC - Budget At Completion - The baseline (planned) budget for the investment.
- BCWP - Budgeted Cost for Work Performed - The earned value.
- BCWS - Budgeted Cost for Work Scheduled - The planned costs.
- CPI - Cost Performance Index - The ratio of the budgeted to actual cost of work performed.
- CV - Cost Variance - The difference between planned and actual cost of work performed.
- EAC - Estimate At Completion - The latest estimated cost at completion.
- ETC - Estimate to Completion - Funds needed to complete the investment.
- PF - Performance Factor - The cost to earn a dollar of value, or ACWP/BCWP, or 1/CPI.
- SPI - Schedule Performance Index - The percent of the investment that has been completed.
- SV - Schedule Variance - The variance between the actual and planned schedules.
- VAC - Variance at Completion - The variance between the baseline and actual budget at completion.

Task 1.3 Acquisition of Signature of Approval

The concurrent acceptance of work deliverables is based on the acquisition of signatures of specified stakeholders and/or members of workgroups assigned to the Project as identified in each Project's Charter. Currently, a signed electronic Deliverable Product Acceptance Form (eDPAF) represents the concurrent acceptance of all parties involved of the completion of a task's deliverable satisfying an Objective of this Performance Work Statement (PWS). The eDPAF is required only when specifically identified by the COR/ACOR for a task of this PWS. The Contractor shall work with the COR/ACOR to ensure a fully-signed eDPAF is completed as required by each identified task of this PWS. See Appendix 1 for an example of an eDPAF. The list of signatures required by the eDPAF will be determined by the COR /ACOR based on the nature of the specific Objective.

Deliverables & Schedule for Task 1.3

The following deliverable is mandatory only when stipulated by the COR/ACOR, to support a specific Performance Objective of this PWS:

Electronic Delivery Product Acceptance Form (eDPAF)

Within a period of time, as specified by the COR/ACOR, after the completion of a task, the Contractor shall ensure a signed eDPAF (or signature equivalent) has been acquired on behalf of the COR/ACOR. The Contractor shall ensure a PDF version of the signed eDPAF is saved into EPA OPPIN Software Configuration Management Tool (VM-OPPIN).

Task 1.4 Version Control and Configuration Management

The Contractor shall use the OPP Configuration Management tool (VM-OPPIN) (<http://dcoppscm01.cmii.epa.gov/>) to collect and store final functional requirements document, final

Page : 10

design document, final prototype code, software source code, meeting minutes, agendas, summaries, and all other documentation and notes gathered at or for the Workgroup sessions described in this

Performance Work Statement. Documentation stored in VM-OPPIN shall be the foundation for specifications to be used to update PRISM software to incorporate Incidents information. The COR/ACOR will provide specific requirements of version control to the Contractor after award.

1: Program Management Quality Assurance Surveillance Plan Performance Object

PERFORMANCE OBJECTIVES	PERFORMANCE MEASURES (PM)	PERFORMANCE STANDARDS (PS) QA TARGET	SURVEILLANCE PLAN (SP)	CONTRACTOR INCENTIVE (CI)
Performance Object 1: Program Management				

1) Submit high quality deliverables to	1) Documents are clear, well	1) Documents are delivered on	1) The Contractor	1) The Contractor will be penalized
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COR/ACOR in a timely manner	organized, and free of typographical, spelling, and formatting errors. The Contractor is encouraged to make use of a professional document editing/review service	time; no more than five (5) typographical, spelling, or formatting errors are identified in any draft or final document	shall be warned, in writing, whenever Performance Objectives are not achieved.	<p>10% (ten percent) of the invoiced amount for the current billing cycle for three (3) or more written warnings of inadequate deliverable quality throughout the performance period.</p> <p>The Contractor will be penalized 1% (one percent) of the invoiced amount for the current billing cycle for each instance of untimely delivery.</p> <p>The Contractor will be penalized 10% (ten percent) of the invoiced amount for the current billing cycle for three) or more written warnings status meetings at which Performance Objectives are not achieved Through-out the performance period.</p>
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2) Collect and store documentation in CM	2) All deliverables and documents	2) 100% (one hundred percent)	2) The Contractor	The Contractor will be penalized
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tool	relevant to each Objective, Task, and Task (including notes, agendas, etc.) are stored in Version Manager.	of deliverables and documents are stored in Version Manager.	shall be warned, in writing, whenever Performance Objectives are not achieved.	<p>by withholding payment of the invoice for the current billing cycle for failure to submit a mandatory deliverable until the mandatory deliverable is received by the COR/ACOR.</p> <p>Contractor disincentives will be limited to no more than 11% per billing cycle.</p> <p>2) The Contractor will be penalized 1% (one percent) of the invoiced amount for the current billing cycle for each deliverable or document not appropriately stored in Version Manager.</p> <p>Contractor disincentives will be limited to no more than 11% (eleven percent) per billing cycle.</p>
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3) Perform contract-level and task-level	3) Weekly status meetings are held;	3) Up-to-date project	3) The Contractor	3) The Contractor will be penalized
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program management	agendas, meeting minutes, and updated project management plan are provided. Work Breakdown Structures are provided for Objectives and Tasks	management plan is provided at 100% (one hundred percent) of status meetings. Status reports contain prioritized Performance Objective lists and accurate lists of accomplishments 100% (one hundred percent) of the time. Work Breakdown Structures are provided for 100% (one hundred percent) of all Objectives and Tasks as determined by the COR/ACOR	shall be warned, in writing, whenever Performance Objectives are not achieved.	<p>1% (one percent) of the invoiced amount for the current billing cycle for each weekly status meeting at which Performance Objectives are not achieved.</p> <p>The Contractor will be penalized 10% (ten percent) of the invoiced amount for the current billing cycle for three (3) or more written warnings status meetings at which performance Objectives are not achieved.</p> <p>Contractor disincentives will be limited to no more than 11% per billing cycle.</p>
4) Provide cost accounting and Earned Value Management (EVM) metrics	4) Cost accounting and EVM metrics are provided in a timely manner	4) Standard EPA EVM practices are followed and a Cost accounting & EVM report are part of each months status report	4) The Contractor shall be warned, in writing, whenever Performance Objectives are not achieved.	<p>4) The Contractor will be penalized 1% (one percent) of the invoiced amount for the current billing cycle for each weekly status meeting at which Performance Objectives are not achieved.</p> <p>Contractor disincentives will be limited to no more than 11% per billing cycle.</p>

NOTE: Performance Objectives 2 through 14 will be managed exclusively by the Customer Service & Computer Support Branch (CSCSB) of the Information Technology & Resource Management Division

(ITRMD). CSCSB will provide Contract Officer Representatives and Alternates for each Performance Objective according to the needs of Branch management and staff. A Quality Assurance Surveillance

Plan (QASP), appears at the end of Performance Objective 14. This QASP should be considered appropriate for all Infrastructure Management and Production System Administration identified within these Objectives.

Performance Objective 2: Storage Area Network (SAN) Administration (Mandatory)

Subtask A: Storage Area Network (SAN) Management

The Contractor shall be responsible for the management and administration of the SAN, including management of RAID groups, logical units (LUNs), server attachment to the SAN including installation of Powerpath and Navisphere client software, and allocation and activation of SAN-attached storage on the servers. The Contractor will document changes made to the SAN layout and periodically provide reports, charts etc. to EPA detailing the configuration and space allocation.

Subtask B: Fibre Channel Network Management

The Contractor shall be responsible for the management of the fibre channel network including the FC switches used to provide connectivity between the SAN storage unit, attached servers, and tape library. Duties would include zone management to provide connectivity between the server and SAN hosted storage.

Subtask C: SAN/FC Network Maintenance

The Contractor shall be responsible for day to day monitoring of the health of the SAN and FC network, notifying EPA of problems, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying client product patches and upgrades to the product as recommended by the EPA or the vendor.

Performance Objective 3: VMware Administration (Mandatory)

Subtask A: VMware Management

The Contractor shall be responsible for the management and administration of the VMware server environment. Duties include installation and configuration of VMware ESX 3.5 or Vsphere 4 on servers, the allocation of SAN attached storage to VMware, allocation of virtual machines containing RedHat Linux or Windows 2003 servers, and implementation of VMware features such as Virtual Motion, Dynamic Resource Scheduling, Disaster Recovery, and Backup.

Subtask B: VMware Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the VMware

environment using VM Virtual Center, working with the vendor to obtain technical support and to

implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor.

Performance Objective 4: Windows Server 2003 Administration (Mandatory)

The Contractor shall be responsible for the management and administration of OPP's physical and virtual Windows 2003 servers. Duties include installation of Windows 2003 server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), setting up the operating system environment to host EPA standard software.

Subtask B: Windows Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Windows servers, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the operating system as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Subtask C: Windows Active Directory Maintenance

The contractor shall be responsible adding and removing EPA AD user accounts from various OPP-controlled AD groups. AD certification is required to perform this duty.

Performance Objective 5: RedHat Linux Server Administration (Mandatory)

Subtask A: Redhat Linux Server Management

The Contractor shall be responsible for the management and administration of OPP's physical and virtual Redhat Linux servers. Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), setting up the operating system environment to host EPA standard software. Expertise is explicitly required for the support of Oracle's Real Application Cluster (RAC) software and database on Linux Performance Objective 4: Windows Server 2003 Administration (Mandatory)

Subtask B: Redhat Linux Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Linux servers, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 6: Oracle Database/Real Application Cluster (RAC) Administration (Mandatory)

Subtask A: Production Oracle Database/RAC Management

The Contractor shall be responsible for the management and administration of OPP's production Oracle

databases and Real Application Clusters (RAC). Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs),

creating/modifying Oracle databases, managing users, security, storage, schemas, performance, and database backup and recovery.

Subtask B: Oracle Database/RAC Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions and scripts received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Oracle Database/RAC Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Oracle databases/clusters, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 7: Oracle Internet Application Server Administration (Mandatory)

Subtask A: Oracle Internet Application Server (iAS) Management

The Contractor shall be responsible for the management and administration of OPP's production Oracle Internet Application Server environment. Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying managing Oracle iAS applications.

Subtask B: Oracle Internet Application Server (iAS) Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions and scripts received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Oracle Internet Application Server (iAS) Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Oracle internet application server environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 8: Citrix Server/Farm Administration (Mandatory)

Subtask A: Citrix Server/Farm Management

The Contractor shall be responsible for the management and administration of OPP's Citrix Metaframe Presentation Server environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing the software, components, adding/removing applications, security and performance.

The contractor shall be responsible for the day to day monitoring of the health of the VMware environment using VM Virtual Center, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor.

Performance Objective 4: Windows Server 2003 Administration (Mandatory)

The Contractor shall be responsible for the management and administration of OPP's physical and virtual Windows 2003 servers. Duties include installation of Windows 2003 server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), setting up the operating system environment to host EPA standard software.

Subtask B: Windows Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Windows servers, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the operating system as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Subtask C: Windows Active Directory Maintenance

The contractor shall be responsible adding and removing EPA AD user accounts from various OPP-controlled AD groups. AD certification is required to perform this duty.

Performance Objective 5: RedHat Linux Server Administration (Mandatory)

Subtask A: Redhat Linux Server Management

The Contractor shall be responsible for the management and administration of OPP's physical and virtual Redhat Linux servers. Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), setting up the operating system environment to host EPA standard software. Expertise is explicitly required for the support of Oracle's Real Application Cluster (RAC) software and database on Linux Performance Objective 4: Windows Server 2003 Administration (Mandatory)

Subtask B: Redhat Linux Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Linux servers, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 6: Oracle Database/Real Application Cluster (RAC) Administration (Mandatory)

Subtask A: Production Oracle Database/RAC Management

The Contractor shall be responsible for the management and administration of OPP's production Oracle databases and Real Application Clusters (RAC). Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying Oracle databases, managing users, security, storage, schemas, performance, and database backup and recovery.

Subtask B: Oracle Database/RAC Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions and scripts received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Oracle Database/RAC Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Oracle databases/clusters, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 7: Oracle Internet Application Server Administration (Mandatory)

Subtask A: Oracle Internet Application Server (iAS) Management

The Contractor shall be responsible for the management and administration of OPP's production Oracle Internet Application Server environment. Duties include installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying/managing Oracle iAS applications.

Subtask B: Oracle Internet Application Server (iAS) Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions and scripts received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Oracle Internet Application Server (iAS) Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Oracle internet application server environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 8: Citrix Server/Farm Administration (Mandatory)

Subtask A: Citrix Server/Farm Management

The Contractor shall be responsible for the management and administration of OPP's Citrix Metaframe Presentation Server environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing the software, components, adding/removing applications, security and performance.

Subtask B: Citrix Server/Farm Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Citrix Server/Farm environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 9: Documentum Administration (Mandatory)

Subtask A: Documentum Management

The Contractor shall be responsible for the management and administration of OPP's production Documentum environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying documentum-related applications and services.

Subtask B: Documentum Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions and scripts received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Documentum Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Documentum environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 10: Lotus Domino Server Administration (Mandatory)

Subtask A: Lotus Domino Server Management

The Contractor shall be responsible for the management and administration of OPP's production Lotus Domino server environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing databases, applications and performance.

Subtask B: Lotus Domino Server Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions received from the development team in order to upgrade applications and databases from the development/test environment to the production environment.

Subtask C: Lotus Domino Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Lotus Domino server environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 11: Lotus Enterprise Integrator (LEI) Administration (Mandatory)

Subtask A: Lotus Enterprise Integrator (LEI) Management

The Contractor shall be responsible for the management and administration of OPP's production Lotus Enterprise Integrator environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing operations and performance of the application.

Subtask B: Lotus Enterprise Integrator (LEI) Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Lotus Enterprise Integrator (LEI) Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Lotus Enterprise Integrator environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 12: Business Objects Administration (Mandatory)

Subtask A: Business Objects Management

The Contractor shall be responsible for the management and administration of OPP's production Business Objects environment. Duties include installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing the operation of the environment.

Subtask B: Business Objects Change Management

The contractor shall be responsible for implementing changes to the production environment based on directions received from the development team in order to upgrade applications from the development/test environment to the production environment.

Subtask C: Business Objects Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Business Objects environment, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 13: NetIQ Administration (Optional)

Subtask A: NetIQ Management

The Contractor shall be responsible for the management and administration of OPP's NetIQ server monitoring environment. Duties include but are not limited to installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing the operation of the environment.

Subtask B: NetIQ Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the NetIQ environment,

working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the

product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 14: Data Backup/Restore - Backup Exec/Acronis Image Management (Mandatory)

Subtask A: Backup Exec – Backup/Restore Management

The Contractor shall be responsible for the management and administration of OPP's Backup Exec environment. Duties include but are not limited to installation of software, including agents on servers, executing backup jobs, restore jobs, developing/following proper backup schedules and procedures, including the backup of Oracle databases, Documentum repositories, other OPP data as required, media management, transportation to off-site storage, ensuring that OPP data can be recovered in the event of hardware/software failures.

Subtask B: Acronis Image Management

The contractor shall be responsible for using Acronis TrueImage software to maintain an up-to-date inventory of OPP server drive images, the ability to restore images to malfunctioning servers if necessary, transportation of images to off-site storage.

Subtask C: Data Backup/Restore - Backup Exec/Acronis Image Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Backup Exec environment, ensuring jobs run successfully, conducting test restore operations, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 15: Development/Test Oracle Database/Real Application Cluster RAC Administration (Optional)

Subtask A: Oracle Database/RAC Management

The Contractor shall be responsible for the management and administration of OPP's development and test Oracle databases and Real Application Clusters (RAC). Duties include but are not limited to installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying Oracle databases, managing users, security, storage, schemas, performance, and database backup and recovery.

Subtask B: Oracle Database/RAC Change Management

The Contractor shall be responsible for implementing changes to the development and test environments based on directions and scripts received from the development team in order to upgrade applications in the development and test environments.

Subtask C: Oracle Database/RAC Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the development and test Oracle databases/clusters, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 16: Development/Test Oracle Internet Application Server Administration (Optional)

Subtask A: Oracle Internet Application Server (iAS) Management

The Contractor shall be responsible for the management and administration of OPP's development and test Oracle internet. Duties include but are not limited to installation of server software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying managing Oracle iAS applications.

Subtask B: Oracle Internet Application Server (iAS) Change Management

The contractor shall be responsible for implementing changes to the development and test environments based on directions and scripts received from the development team in order to upgrade applications in the development and test environments.

Subtask C: Oracle Internet Application Server (iAS) Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the development and test Oracle internet application server environments, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 17: Development/Test Documentum Administration (Optional)

Subtask A: Documentum Management

The Contractor shall be responsible for the management and administration of OPP's development and test Documentum environments. Duties include but are not limited to installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), creating/modifying documentum-related applications and services.

Subtask B: Documentum Change Management

The contractor shall be responsible for implementing changes to the development and test environments based on directions and scripts received from the development team in order to upgrade applications in the development/test environment to the production environments.

Subtask C: Documentum Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the development and

test Documentum environments, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches

and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 18: Development/Test Lotus Domino Server Administration (Optional)

Subtask A: Lotus Domino Server Management

The Contractor shall be responsible for the management and administration of OPP's development and test Lotus Domino server environments. Duties include but are not limited to installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing databases, applications and performance.

Subtask B: Lotus Domino Server Change Management

The contractor shall be responsible for implementing changes to the development and test environments based on directions received from the development team in order to upgrade applications and databases in the development and test environments.

Subtask C: Lotus Domino Server Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the Lotus development and test Domino server environments, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 19: Development/Test Lotus Enterprise Integrator (LEI) Administration (Optional)

Subtask A: Lotus Enterprise Integrator (LEI) Management

The Contractor shall be responsible for the management and administration of OPP's development and test Lotus Enterprise Integrator environments. Duties include but are not limited to installation of software, configuration of the software following EPA's Standard Configuration Documents (SCDs), managing operations and performance of the application.

Subtask B: Lotus Enterprise Integrator (LEI) Change Management

The contractor shall be responsible for implementing changes to the development and test environments based on directions received from the development team in order to upgrade applications in the development and test environments.

Subtask C: Lotus Enterprise Integrator (LEI) Maintenance

The contractor shall be responsible for the day to day monitoring of the health of the development and test Lotus Enterprise Integrator environments, working with the vendor to obtain technical support and to implement solutions to problems and malfunctions. The Contractor will be responsible for applying product patches and upgrades to the product as recommended by the EPA or the vendor, and maintaining a spreadsheet/database to provide to EPA for reporting or auditing purposes.

Performance Objective 20: Development/Test Business Objects Administration (Mandatory)